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IN THE

Supreme Court of the United States

OCTOBER TERM, 1966 7

NOVO INDUSTRIAL CORPORATION,
Petitioner,

vs.

STANDARD SCREW COMPANY,
Respondent.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT.

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INDEX.

	PAGE
Petition	1
Citations to Opinions Below	1
Jurisdiction	2
The Questions Presented for Review	2
The Statute Involved in the Case	2
Statement of the Case and Facts Material to Consideration of the Questions Presented	3 to 8
A. Proceedings Below	3
B. The Subject Matter of the Patent in Suit: Smog Control	4
C. The Structure of the Patent Compared to the Accused Structure Charged to Infringe	5
D. State of the Art at the Time of the Lowther Invention; Defendant's Subsequent Action	6
Reasons for Allowance of the Writ	9 to 13
A. Reasons: Even in a Patent Case, the Decisions of This Court Should Not Be Ignored	9
B. Reasons: Lowther's Work Coming Earlier Should Not Be Held Obvious Because of the Work of Three Others Who Came Later	9
C. Reasons: In This Patent Case, There Was Never Any Basic Factual Inquiry Concerning,	
(1) Ascertainment of the Differences Between the Prior Art and the Claims at Issue,	
Or	
(2) Resolution of Ordinary Skill in the Pertinent Art	12
D. Reasons: It Is Immaterial What Motivated Lowther. Every Inventor Is Motivated, as Title 35 U. S. C. 103 Recognizes	13

Conclusion 15

Appendix A: Decision by the Court of Appeals ..17 to 24

Appendix B: Decision by the United States District Court .....25 to 29

CASES CITED.

Graham v. John Deere, 383 U. S. 1..... 2, 9, 12

United States v. Berdan Firearms Manufacturing Co...9, 11

STATUTES CITED.

Title 28 U. S. C. 1254(1) 2

Title 35 U. S. C. 103 .....2, 10, 13

Title 35 U. S. C. 102(g) 11

Title 35 U. S. C. 135 11

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NOVO INDUSTRIAL CORPORATION,

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vs.

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Respondent.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT.

Petitioner, Novo Industrial Corporation, prays that a writ of certiorari issue to review the judgment of the United States Court of Appeals for the Seventh Circuit which held Lowther Patent No. 3,105,477 invalid.

CITATIONS TO OPINIONS BELOW.

The opinion of the Court of Appeals, and the Findings of Fact and Conclusions of Law entered by the District Court are printed respectively in Appendices A and B of this petition, pages 17 to 29 hereof. The opinion of the Court of Appeals is reported at 152 USPQ 543. The District Court findings and conclusions were not published.

JURISDICTION.

The judgment of the Court of Appeals was entered on February 8, 1967; rehearing denied April 11, 1967.

The jurisdiction of this Court is invoked under 28 U. S. C. 1254 (1).

While review is admittedly discretionary, it is believed that this Petition should be granted under Rule 19 of this Court since the "court of appeals . . . has decided a federal question in a way in conflict with applicable decisions of this Court".

THE QUESTIONS PRESENTED FOR REVIEW.

This is a patent case, and the Court is requested to review the following questions, which are really corollaries:

1. Where the crankcase ventilating valve for smog control, charged to infringe, was evolved *after* the patented structure was on the market and publicly acclaimed, may such *subsequent* evolution be used as the sole test of "obviousness" of the subject matter of the patent under Title 35 U. S. C. 103.

2. May the independent work of three engineers, developing the infringing structure many months after the origin of the patented invention, be used to establish as "obvious" the patented (claimed) invention under Title 35 U. S. C. 103, contrary to *Graham* v. *John Deere* which interpreted the "prior art" words of Title 35 U. S. C. 103 as "meaning what was known before" the patented invention.

THE STATUTE INVOLVED IN THE CASE.

35 U. S. C. 103—Conditions for patentability; non-obvious subject matter.

"A patent may not be obtained though the invention

is not identically disclosed, or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

STATEMENT OF THE CASE AND FACTS MATERIAL TO CONSIDERATION OF THE QUESTIONS PRESENTED.

A. Proceedings Below.

The patent in suit, No. 3,105,477, was granted October 1, 1963, entitled Crankcase Valve Ventilating System (A. 321*). Action for infringement was instituted in the United States District Court for the Northern District of Illinois, Eastern Division and on June 7, 1966 (A. 20) the patent was declared invalid and not infringed after entry of findings of fact and conclusions of law (A. 15).

Appeal was taken to the Court of Appeals for the Seventh Circuit. On February 8, 1967, that Court affirmed on invalidity and did not rule on infringement.

Petition for rehearing was denied by the Court of Appeals.

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*"A" and page number refers to the Appendix record of Plaintiff in the Court of Appeals which includes the entire trial transcript, certain pre-trial aspects, certain materials in evidence, and the findings of fact and conclusions of law entered by the District Court. The Appendix record of Defendant in the Court of Appeals repeats the District Court findings and conclusions, and includes prior art identified as DX-1, DX-2, etc.

B. The Subject Matter of the Patent in Suit: Smog Control.

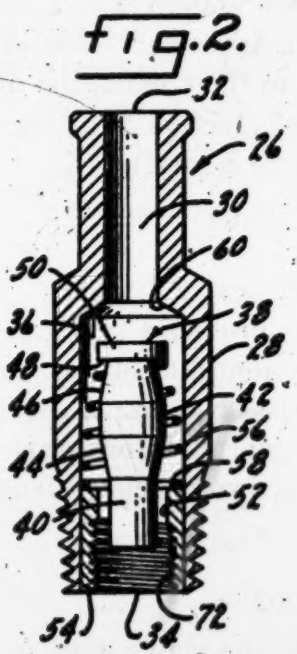
The decision of the Court of Appeals nowhere takes into account a comparison between the prior art and the *claimed* subject matter of the patent in suit, but does explain the purposes of the valve of the patent in suit in terms of smog control (page 18 hereof):

> "The patent in suit pertains to a valve structure adapted to be interposed in a conduit interconnecting the crankcase and the air intake manifold of an internal combustion engine, such as an automobile motor. The valve is employed for the purpose of providing a controlled flow of ventilating air from the crankcase back to the intake manifold. The type of ventilating system in which the valve is incorporated provides a means by which the blow-by gases from the cylinders which leak past the piston rings and into the crankcase are returned through the air intake to the combustion chamber for re-burning rather than exhausted from a conventional crankcase draft tube into the atmosphere. Such a ventilating system is designed to prevent the unburned hydrocarbons present in the blow-by from polluting the atmosphere and contributing to the 'smog' problem which in recent years has been encountered in some areas."

C. The Structure of the Patent Compared to the Accused Structure Charged to Infringe.

1.

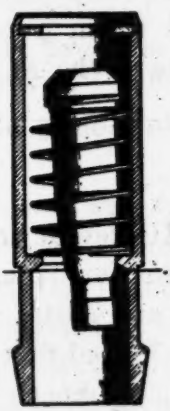
W. W. Lowther
Patent No. 3,105,477



"In normal operation, the pin is suspended or floats on the spring with no seating or closing contact with the orifice. In event of backfire, the head of the pin (the end of the pin facing away from the orifice) seats on a shoulder formed by a reduction of the inner diameter of the housing and thereby effects a closing or sealing-off of the inlet from the crankcase. The pin is solid. It therefore is without passages likely to clog. The coils of the compression spring engage the inner walls of the housing to effect a self-cleaning action." (Page 19 hereof.)

2.

Defendant's Structure Evolved by Messrs. Barnes, Givler and Wasisco



"Defendant's accused valve structure has but one feature which serves to distinguish it from the patented structure and from the plaintiff's commercial device. In defendant's valve one of the coils of the compression spring is laterally offset relative to the other coils so that under load conditions (high engine speeds) the cant imparted to the metering pin by the form of the spring causes the pin to come in rubbing contact with the wall of the orifice for the purpose of preventing or dampening longitudinal oscillation of the pin." (Page 19 hereof.)

D. State of the Art at the Time of the Lowther Invention; Defendant's Subsequent Action.

The application for the patent in suit was filed January 8, 1962 (A. 321). At this time the standard crankcase ventilating valve in the industry for smog control was the ineffectual and troublesome AC device of General Motors (A. 50-1) represented by McMullen Patent No. 2,716,398 (DX-2). As noted by the Court of Appeals, "those skilled in the art (addressed) themselves to the elimination of the features which were causing dissatisfaction with the performance of the AC valve" (page 23 hereof).

The chronology of events is as follows:

—May, 1960—

The AC device presented serious problems to the motorist—distortion, plugging, carburetion difficulties, engine damage and costly repairs (A. 55-6; A. 59-62; A. 64-5) so much so indeed that in May 1960 General Motors started to tackle the problems presented by its own deficient structure (A. 375, first paragraph).

—February, 1962—

Performance by the General Motors valve was so bad that the Pollution Control Board in California undertook surveillance of the AC structure (A. 371). The witness Pattison participated; and the surveillance report, issued February 14, 1962 (A. 57), concluded as to the AC valve (A. 375):

1. "Because of the difficulty in cleaning and the economic phases of the cost of cleaning, together with the pounding out of the soft body valves, it has been the attitude of the staff that *it would be best to replace the AC crankcase ventilation valves rather than try to clean them.*" (Emphasis supplied.)

2. "There is also always the question as to whether the valve is properly cleaned and if a poor job is done and a partly plugged valve is reinstalled on the car *the air pollution program would suffer.* The chief justification for cleaning a valve would be the lack of a replacement valve in stock in the shop doing the work. Ordering a new valve would require an additional trip to the shop by the owner and this would pose a problem." (Emphasis supplied.)
3. "By replacement the population of soft body valves will gradually be washed out. Continued cleaning of soft body valves *might hurt the program* because of the possibility of oil carryover." (Emphasis supplied.)

— April 1962 —

The Lowther device of the patent in suit was subjected to open field testing by American Motors in April 1962. Defendant was fully aware of this (A. 197) and at the time was furnishing the defective AC valve (A. 199). In fact, Defendant learned from American Motors that Defendant's business on the AC device was in danger because of the lower price of the Lowther or Novo structure (A. 182-3).

— June 1962 —

The patented structure was approved for installation in California in June of 1962. Hundreds of persons were present, and full details were revealed by way of supporting materials available to the public (A. 44-5, A. 50, A. 60).

— August 1962 —

As stated by the Court of Appeals, Defendant did not bring out its structure, accused of infringement, until

August of 1962 (page 20 hereof); and while the accused structure may have been produced by *three* engineers of Defendant independently of any knowledge of the valve of the patent in suit, it was nevertheless stipulated as part of the pre-trial proceedings in this case that (A. 24),

> "In view of the withdrawal by plaintiff of its Interrogatories 57 through 61, inclusive, and 74, it is hereby stipulated by counsel for defendant in the above action as follows:
>
> "1. Defendant does not rely upon its own activities to show invalidity of the patent in suit;
>
> "2. Defendant does not claim any anticipation of the patent in suit by activities of the defendant."

These events, the patent application and public activity of Lowther, occurred before the origin of the structure charged to infringe, as to which there was *no* activity before August 1962 (A. 184).

Briefly, the sequence is this:

May 1960—General Motors struggling with the AC device;
January 1962—Application for patent in suit filed;
February 1962—California Board expresses concern with AC device;
April 1962—Defendant learns of testing and price advantage of the structure of the patent in suit;
June 1962—California approval (public) of the structure of the patent in suit;
August 1962—Defendant launches the accused structure.

REASONS FOR ALLOWANCE OF THE WRIT.

A. REASONS: Even in a Patent Case, the Decisions of This Court Should Not Be Ignored.

The reason why this writ should be allowed is that the decision of this Court in *United States* v. *Berdan Firearms Manufacuring Co.*, 156 U. S. 552, and the guidelines in *Graham* v. *John Deere*, 383 U. S. 1 should not be ignored.

The patent was held invalid on the ground that what Defendant did, *after* Lowther, established that what Lowther did was obvious. This is contrary to *United States* v. *Berdan Firearms*.

The differences claimed by Lowther, compared to the prior art, were never found or observed in this case, nor was the skill of the art resolved as to these differences in spite of the whole proceedings being under 35 U. S. C. 103 on the issue of patentability. The rationale for invalidity was "established" by the activity of Defendant's engineers coming *after* the Lowther invention, not before. All this is contrary to *Graham* v. *John Deere*.

Even in a patent case, the rules of law should be respected.

B. REASONS: Lowther's Work Coming Earlier Should Not Be Held Obvious Because of the Work of Three Others Who Came Later.

Lowther's work was "established" as "obvious" because of the work of Defendant's Engineers (Finding 13, A. 18) in spite of the fact that what Defendant did had no bearing on invalidity of the patent (A. 24). The Court of Appeals affirmed saying it was precluded from "rejecting any of the critical factual findings relative to the issue of lack of invention for 'obviousness' as being clearly erroneous" (page 22 hereof). But the *only* finding on obviousness, the

differences sought to be patented compared to the prior art, was Finding 13 by the District Court (A. 18).

Lack of invention for obviousness under 35 U. S. C. 103 requires at the very least that the differences sought to be patented be separated from the prior art and tested as to the level of skill, but *no such determination for differences or skill was ever made in this case.* In fact, such determination was clearly deemed unnecessary by the District Court under Finding 13 which states that the differences, if any, between the Lowther patent claims and the prior art are *established* as obvious *by the fact* that Mr. Givler, Mr. Barnes and Mr. Wasisco evolved and produced a valve for Defendant independently of and after Lowther (A. 18).

The Court of Appeals adopted the view of the District Court as to "obvious" subject matter saying (page 23 hereof).

> "The development of the valve of the patent in suit, and the independent and almost contemporaneous development and introduction of the defendant's accused valve structure *which followed,* in our judgment *warrant* the conclusion that the structure of the patent in suit was but the result of application of ordinary skill in the art to a problem which for the first time was beginning to assume significant commercial importance to the automotive industry." (Emphasis supplied.)

Petitioner is aware of no decision holding that the development of the accused structure, coming later, renders invalid as "obvious" the *earlier* invention, whether the time difference be seven months[1] or four months[2] or just

---

1. Lowther filed in January 1962; seven months later, in August 1962 Defendant's *three* engineers (Barnes, Wasisco, Givler) came up with the accused device.

2. Both the test of the Lowther device and its lower cost came to the attention of Mr. Barnes for Defendant in April 1962 four months prior to Defendant's activity.

two months.[3] This Court in fact ruled directly contra in *United States* v. *Berdan Firearms*, 156 U. S. 552, 566,

> "With regard to the second question, it appears that Berdan invented the extractor ejector; that he received a patent therefor and assigned such patent to the petitioner. It also appears that the government has made use of this invention, or at least one differing from it only in the substitution of a spiral for a flat spring. These springs 'perform the same office and attain the same result in the same way,' and the use of the one for the other is a 'matter of choice, and is in no way material to the result.' Upon these facts alone, thus briefly stated, the defendant, were it a private person, would be liable to an action of infringement. **Nor would it be a defense to the action that such person had, subsequent to Berdan's invention, and without knowledge thereof, devised the contrivance which he was using. He would be in the attitude of a subsequent inventor, and the prior inventor is the one who, under the statutes, is entitled to the monopoly.**" (Emphasis supplied.)

Under the *Berdan Firearms* decision, an assertion of independent invention only begs the issue of who was first, requiring resolution in terms of an "interference." That is also the law today, Title 35 U. S. C. 135, and Title 35 U. S. C. 102(g).

Even a patentee is entitled to invoke and rely upon the statutes of this country and the decisions of this Court, requiring invention *vel non* to be determined on the basis of what came before, and not after, the invention.

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3. Lowther was approved in California in June 1962 in a public meeting open to anyone, two months before Defendant's activity.

C. REASONS: In This Patent Case, There Was Never Any Basic Factual Inquiry Concerning,

(1) Ascertainment of the Differences Between the Prior Art and the Claims at Issue,

OR

(2) Resolution of Ordinary Skill in the Pertinent Art

Certainly if the lower courts are to implement the decision of this Court in *Graham* v. *John Deere*, 383 U. S. 1, 17, then

> "Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined."

But this record can be searched in vain for any ascertainment of the differences between the prior art and what is claimed by Lowther, and an equally vain search can be made for any resolution of the level of ordinary skill in the art involved.

If, as this Court said in the *Graham* case, there is to be "uniformity and definiteness" in the 1952 Patent Act (383 U. S. 18), then there should be "strict observance of the requirements laid down" in the *Graham* case.

In holding the Lowther invention, which came earlier, to be invalidated by the concerted effort of Defendant's three engineers which came seven months later, the Court of Appeals clearly disregarded the *Graham* case where this Court observed that the issue of obviousness, as to the differences *claimed*, is to be resolved under the state of the art *at the time the invention was made*, 383 U. S. 1, 15:

> "'Section 103 states this requirement in the title. It refers to the difference between the subject matter

> sought to be patented and the prior art, *meaning what was known before* as described in section 102. If this difference is such that the subject matter as a whole would have been obvious at the time to a person skilled in the art, then the subject matter cannot be patented.'" (emphasis supplied.)

What Barnes, Givler and Wasisco accomplished in concert after Lowther is neither prior art, nor a basis for resolving invention *vel non* under the terms of Title 35 U. S. C. 103.

D. REASONS: It Is Immaterial What Motivated Lowther. Every Inventor Is Motivated, as Title 35 U. S. C. 103 Recognizes.

Title 35 U. S. C. 103 states in the concluding sentence that "Patentability shall not be negatived by the manner in which the invention was made."

The Court of Appeals in this case observed:

> "We think it apparent that the advent of legislation requiring the use of effective blow-by control devices on automobiles served to create an expanded market for the valve used in crankcase ventilating systems and spurred those skilled in the art to address themselves to the elimination of the features which were causing dissatisfaction with the performance of the AC valve" (page 23 hereof).

If the Court of Appeals meant by the just-quoted language that Lowther's invention was obvious because he was motivated by legislation, along with others skilled in the art, to "address (himself) to . . . dissatisfaction with . . . the AC valve", such conclusion is impermissible. 35 U. S. C. 103 states unequivocally that the manner in which an invention is made is immaterial. Indeed, every inventor is motivated by and addresses himself to some need, whether the need is one for him or the need for alleviating the social blight of smog, as in this instance.

The plain fact is that Lowther succeeded to the extent of supplanting both General Motors and this Defendant on the defective AC device which they both fostered on the public and required the public to underwrite as to maintenance (A. 65; A. 375).

The combined efforts of the State of California, AC (General Motors) and the oil companies were ineffectual in satisfying an urgent need for something superior to the AC device (A. 65). But Lowther succeeded in bettering an entire industry, and his success, compared to the AC device, is attributed to durability, lack of failure, sustained calibration, elimination of motorist concern for engine damage, and lack of repair costs (A. 65).

In light of such testimony as to what Lowther accomplished, and the plain, documented statement by the experts that the level of skill applied to the AC problem was only producing further "concern" for a suffering pollution control program in California (A. 375), it is wholly unjust to have Lowther "established" as obvious on the basis of what came *afterward*.

CONCLUSION.

No patent claim, coming earlier through the work of a single inventor, should be held invalid on the basis of a later work by three others acting in concert. What the others did later is neither prior art nor a legitimate basis for resolving invention *vel non.*

No patent claim should be held invalid without ascertaining the differences between the prior art (meaning what came before) and the claims at issue and then resolving the level of ordinary skill in the art to determine if the differences would have been obvious to a person of ordinary skill in the pertinent art *at the time the invention was made.*

It is respectfully requested that this Petition be granted.

Respectfully submitted,

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APPENDIX A.

IN THE UNITED STATES COURT OF APPEALS,
For the Seventh Circuit.

September Term, 1966—January Session, 1967.

No. 15827.
NOVO INDUSTRIAL CORPORATION,
Plaintiff-Appellant,
vs.
STANDARD SCREW COMPANY,
Defendant-Appellee.

Appeal from the United States District Court for the Northern District of Illinois, Eastern Division.

February 8, 1967.

Before KNOCH, CASTLE and SWYGERT, *Circuit Judges.*

CASTLE, *Circuit Judge.* Novo Industrial Corporation, plaintiff-appellant, the owner of Lowther U. S. Patent No. 3,105,477, issued October 1, 1963, and relating to a crankcase ventilating system for internal combustion engines, brought this suit in the District Court against Standard Screw Company, defendant-appellee, charging infringement of the patent. The defendant denied infringement and asserted that the patent was invalid.

The District Court, following trial of the issues of validity and infringement, entered findings of fact, conclusions of law, and a judgment order adjudicating the patent in suit to be invalid and dismissing plaintiff's action. The court also found, concluded, and adjudged

that the patent, if valid, is not infringed by the devices shown to have been manufactured and sold by the defendant. On the issue of validity the court concluded that the subject matter of each of the claims of the patent fails to meet the condition of nonobviousness imposed by 35 U. S. C. A. § 103 as a prerequisite to the existence of patentable invention.

The patent in suit pertains to a valve structure adapted to be interposed in a conduit interconnecting the crankcase and the air intake manifold of an internal combustion engine, such as an automobile motor. The valve is employed for the purpose of providing a controlled flow of ventilating air from the crankcase back to the intake manifold. The type of ventilating system in which the valve is incorporated provides a means by which the blow-by gases from the cylinders which leak past the piston rings and into the crankcase are returned through the air intake to the combustion chamber for re-burning rather than exhausted from a conventional crankcase draft tube into the atmosphere. Such a ventilating system is designed to prevent the unburned hydrocarbons present in the blow-by from polluting the atmosphere and contributing to the "smog" problem which in recent years has been encountered in some areas.

When such a ventilating system is employed it is essential to the efficient and proper functioning of the engine that the flow of ventilating air from the crankcase to the intake manifold be controlled by metering in order to adjust for variations in the pressure differential between the crankcase and the intake manifold due to changes in intake manifold vacuum which occur according to the speed at which the engine is operated. The purpose of the valve of the patent is to so meter the flow and thereby regulate the amount of blow-by the intake vacuum is permitted to suck up from the crankcase.

The valve structure of the patent in suit comprises a housing provided with a metering orifice, and an elongated solid metering pin of a varying diameter which floats on a compression spring and cooperates with the metering orifice of the housing. The compression spring normally biases the pin away from the orifice. The diameter of the orifice is greater than any cross-section diameter of the pin. The pin retracts or advances in the orifice in response to changes in the pressure differential between the crankcase and the intake manifold and thereby alters the effective area or amount of clearance available between the pin and the wall of the orifice for the passage of blow-by to the intake manifold.

In normal operation, the pin is suspended or floats on the spring with no seating or closing contact with the orifice. In event of backfire, the head of the pin (the end of the pin facing away from the orifice) seats on a shoulder formed by a reduction of the inner diameter of the housing and thereby effects a closing or sealing-off of the inlet from the crankcase. The pin is solid. It therefore is without passages likely to clog. The coils of the compression spring engage the inner walls of the housing to effect a self-cleaning action.

Defendant's accused valve structure has but one feature which serves to distinguish it from the patented structure and from the plaintiff's commercial device. In defendant's valve one of the coils of the compression spring is laterally offset relative to the other coils so that under load conditions (high engine speeds) the cant imparted to the metering pin by the form of the spring causes the pin to come in rubbing contact with the wall of the orifice for the purpose of preventing or dampening longitudinal oscillation of the pin.

The record discloses that since 1960 there has been increasing interest in the use of blow-by control devices

on automobiles. In 1963 the State of California made it mandatory that new motor vehicles be equipped with a blow-by control device meeting prescribed emission and operating standards. In 1964 a similar requirement was extended to used vehicles. The State of New York also requires crankcase control devices, and in 1965 New Jersey was considering similar legislation.

The application for the patent in suit was filed on January 8, 1962. Crankcase ventilating systems incorporating the valve structure described and claimed in the application (and in the patent which later issued) were approved by California on June 19, 1962, for use as blow-by devices when factory-installed by the automobile manufacturer on new cars, and on June 5, 1963, for use on used cars.

Plaintiff and defendant are competing manufacturers of crankcase ventilating system valves. But defendant sells its valves only to automobile manufacturers for installation as original equipment. Defendant brought out its accused valve device in August of 1962, and its unit sales have been from four to five times greater than the plaintiff's. The plaintiff's sales are primarily in the replacement and used car after-markets.

The valve structure of the patent in suit is primarily directed to eliminating a plugging-up and "freezing-up" problem encountered in connection with the use of the type of valve which was first made commercially available for use in crankcase ventilating systems. This earlier type, known as the AC valve, was manufactured by the defendant and utilized the structure disclosed by McMullen U. S. Patent No. 2,716,398, issued August 30, 1955. This valve utilized a spring-loaded plunger which at low engine speeds, idling, and deceleration came into seating contact with the orifice to effect a closure during which the blow-by passed through a small passage in the plunger

itself. Sludge from the crankcase which accumulated in the valve could plug the passage in the plunger or cause the plunger to stick in its seated position. Because of this, and of loss of the designed control characteristics or calibration due to distortion of the orifice seat caused by its repeated metal-to-metal contact with the plunger, periodic replacement of the valve was required to insure efficient engine operation and adequate blow-by control, and to safeguard against damage to the motor. A C recommended regular checking and maintenance every 4000 to 6000 miles.

Pertinent factual findings of the District Court may be summarized as follows:

Crankcase ventilating system valves which meter the withdrawal of crankcase vapors and the return of such vapors to the intake manifold of an engine are old in the art. A previous Lowther patent (U. S. Patent No. 2,359,485), issued in 1944 disclosed such a valve in which the metering pin is biased away from the orifice by weight rather than a spring, and it was obvious to anyone skilled in the art that such a valve could be biased by a spring instead of a weight if so desired so the valve could operate in an attitude other than vertical. McKiney U. S. Patent No. 3,017,871 discloses the substitution of a spring as an alternative to the weighting of the metering pin in a valve controlling the flow of fuel additives to the intake manifold of a combustion engine. Metering valves such as Sciore U. S. Patent No. 2,988,346, Francis U. S. Patent No. 780,986, McMullen U. S. Patent No. 2,716,398, and Cowgill U. S. Patent No. 3,077,762, show metering valves in which the metering pin is biased away from the metering orifice by a spring; that the metering pins in Sciore and Francis are elongated, solid tapered pins biased away from the orifice, in each case, by a spring and never necessarily contacting the orifice or any portion of the

valve housing. The flow of fluid in each case tends, as it does in the patent in suit, to press against the pin and spring and move the pin into the orifice so as to resist increased flow. The valve structure of the patent in suit in essence comprises an elongated solid metering pin of a varying diameter, which floats on a compression spring and cooperates with a metering orifice in a housing, but it never necessarily contacts the orifice or any portion of the housing. The spring normally biases the pin away from the orifice. Defendant's engineers evolved and produced the defendant's accused valve structure independently of any knowledge of the specific construction of the valve of the patent in suit.

It is pertinent to observe that the trial court heard the testimony of expert witnesses with respect to the elements, operational functions and characteristics of the patent in suit, and the scope and content of prior art disclosures, considered from the standpoint of whether the construction of the patent would have been obvious to one skilled in the art at the time of the making of the claimed invention. Rule 52(a) of the Federal Rules of Civil Procedure (28 U. S. C. A.) therefore applies to our review of the court's factual findings relating to such matters. *Aerosol Research Company* v. *Scovill Manufacturing Co.*, 7 Cir., 334 F. 2d 751, 753. And our examination and appraisal of the record on the basis of the opposing contentions advanced on appeal by the parties convinces us that there is substantial evidentiary support which precludes us from rejecting any of the critical factual findings relevant to the issue of lack of invention for "obviousness" as being clearly erroneous.

Inasmuch as neither the Sciore patent nor the Francis patent was before the Patent Office, the statutory presumption of validity attaching to the issuance of a patent is of no aid to the plaintiff. *A R Inc.* v. *Electro-Voice, In-*

corporated, 7 Cir., 311 F. 2d 508, 512; *Hobbs v. Wisconsin Power & Light Company,* 7 Cir., 250 F. 2d 100.

Plaintiff relies heavily upon argument addressed to the factors of commercial success and the failure of others to remedy the shortcomings or solve the problems of the A C valve, which was the device in commercial use preceding the development of the structure of the patent in suit. It urges that these factors require a conclusion that the then existing level of ordinary skill in the art was at a stage which compels a determination of the issue of obviousness in favor of the validity of the patent in suit. We are not persuaded by this argument. On the record before us, such contention affords no basis for a rejection of the conclusion to the contrary dictated by factual findings which are substantially supported by expert testimony. We think it apparent that the advent of legislation requiring the use of effective blow-by control devices on automobiles served to create an expanded market for the valve used in crankcase ventilating systems and spurred those skilled in the art to address themselves to the elimination of the features which were causing dissatisfaction with the performance of the A C valve. The development of the valve of the patent in suit, and the independent and almost contemporaneous development and introduction of the defendant's accused valve structure which followed, in our judgment warrant the conclusion that the structure of the patent in suit was but the result of application of ordinary skill in the art to a problem which for the first time was beginning to assume significant commercial importance to the automotive industry.

Moreover, commercial success, unsolved needs, failure of others, etc., are but secondary considerations which, although they may have some relevancy as indicia of obviousness or nonobviousness, and may serve to guard against slipping into hindsight, do not on a record such

as that before us tip the scales in favor of patentability. *Graham* v. *John Deere Co.*, 383 U. S. 1.

We perceive no basis for disturbing the District Court's conclusion and adjudication that Lowther U. S. Patent No. 3,105,477 is invalid. And, in view of this, we deem it unnecessary to consider the contentions made concerning the court's resolution of the issue of infringement. There can be no infringement of an invalid patent. *Toro Manufacturing Corporation* v. *Jacobsen Manufacturing Company*, 7 Cir., 357 F. 2d 901, 904; *Simmons* v. *Hill-Rom Company*, 7 Cir., 352 F. 2d 886; *Enterprise Railway Equipment Co.* v. *Keystone Railway Equipment Co.*, 7 Cir., 267 F. 2d 102.

The judgment order of the District Court is therefore affirmed.

AFFIRMED.

APPENDIX B.

IN THE UNITED STATES DISTRICT COURT.

(Caption—63-C-1769)

FINDINGS OF FACT.

This case having come on for trial beginning May 13, 1965, and witnesses having been heard by the Court and briefs having been filed with the Court, the Court now finds as facts:

1. Plaintiff, Novo Industrial Corporation, is a corporation of the State of New York, and has an office and place of business at 9705 South Cottage Grove Ayenue, Chicago, Illinois.

2. Defendant Standard Screw Company, is a corporation of the State of New Jersey, and has an office and place of business at 2701 Washington Boulevard, Bellwood, Illinois, in the above-entitled district and division of the United States District Court.

3. This is a Complaint for patent infringement, and the parties admit that this Court has jurisdiction and venue.

4. On October 1, 1963, United States Letters Patent No. 3,105,477 entitled "Crankcase Valve Ventilating System" issued to Plaintiff as a result of assignment from the applicant, Wilfred W. Lowther, and Plaintiff is now the owner of said Letters Patent and exclusive rights therein, and is entitled to maintain this action.

5. Plaintiff and Defendant are manufacturers, and among other products each of them manufacture an automotive product commonly designated as a crankcase venti-

lating valve. Defendant sells its valves only to automobile manufacturers as original equipment (Transcript page 366, hereinafter Tr. 366). Up to the time of trial Defendant had sold from eight to ten millions of its valves (Tr. 152, 366). Plaintiff has sold only a relatively small number of its valves to automobile manufacturers (Tr. 409, 410, 411, 412). Its sales are primarily to the aftermarket, particularly in California where it is required by law that all automotive vehicles be equipped with a crankcase ventilation system. These systems prevent unburned hydrocarbons, or blow-by, from escaping to the atmosphere by drawing the blow-by from the crankcase back into the engine.

6. The subject matter of the patent in suit (PX-1) is a specific type of metering valve adapted to be used in a crankcase ventilation system having a conduit such as a hose to connect up the crankcase with the intake manifold so the intake vacuum can suck a metered amount of blow-by from the crankcase. The valve structure shown and described in the patent in suit in essence comprises an elongated solid metering pin of a varying diameter, which floats on a compression spring and cooperates with a metering orifice in a housing, but it never necessarily contacts the orifice or any portion of the housing. The compression spring normally biases the pin away from the orifice.

7. Plaintiff notified Defendant prior to the issuance of Letters Patent No. 3,105,477 that Plaintiff claimed the Defendant's device would infringe the Letters Patent about to issue (Tr. 128-135), but Plaintiff did not know the specific valve structure offered by Defendant until it found this out from Defendant's witnesses after this action had been filed (Tr. 418, 419).

8. Defendant's engineers designed the Defendant's valve without prior knowledge of the internal design of the Lowther valve (Tr. 421, 373, 396) of Patent No. 3,105,477, and designed it so that the metering pin utilized

therein would have a rubbing contact with the orifice under load conditions, for the specific purpose of preventing longitudinal oscillation of the metering pin (Tr. 374, 431, 432) in order that Defendant's valve would meet the flow requirements of the automobile manufacturers, particularly American Motors, Chrysler and Ford (Tr. 423, 424, 437).

9. The actual construction of Defendant's valve was a trade secret (Tr. 360-364, 376, 393) and was deliberately omitted from drawings of the valve and was not disclosed to others until after this litigation was commenced and after a protective order had been obtained from this Court prohibiting the use of this information by Plaintiff.

10. The specific feature of Defendant's valve is presently the subject of a United States patent application (PX-35), and this application will be maintained by the Patent Office in secrecy until and unless a patent issues on it. (See 35 U. S. C. 122.)

11. Crankcase ventilating valves which meter the withdrawal of crankcase vapors and the return of such vapors to the intake manifold of an engine are very old. One such valve, for example, is disclosed in a patent to the alleged inventor here, W. W. Lowther, in an already expired patent, No. 2,359,485 (DX-2), granted October 3, 1944. The metering pin is biased away from the orifice by a weight rather than a spring, as in the present valve of the Lowther patent in suit, but it is obvious to anyone at all skilled in the art that such a valve could be biased by a spring instead of a weight if so desired so that this ventilating valve could operate in an attitude other than vertical. Prior patentee McKiney (DX-3) states that it is obvious to do so in his patent.

12. Metering valves such as Sciore, No. 2,988,346 (DX-5), Francis, No. 780-986 (DX-7), McMullen, No. 2,716,398 (DX-1), Cowgill, No. 3,077,762 (DX-6), and others show

metering valves in which the metering pin is biased away from the metering orifice by a spring. The metering pins in Sciore and Francis are elongated, solid tapered pins biased away from the orifice, in each case, by a spring and never necessarily contacting the orifice or any portion of the valve housing. The flow of fluid in each case tends, as it does in the patent in suit, to press against the pin and spring and move the pin into the orifice so as to resist increased flow. Sciore, in particular, teaches virtually the identical valve structure proposed by W. W. Lowther in the patent in suit.

13. The differences, if any, between the subject matter of each of claims 1-11, inclusive, of the patent in suit would have been obvious, considered as a whole, at the time it was made, in view of the teachings of the prior art. This is established by the fact that Mr. Givler, Mr. Barnes and Mr. Wasisco, who at the time were employed by Defendant, evolved and produced, independently of any knowledge of the specific construction of the valve structure of the patent in suit (Tr. 373, 396, 421), a valve having a spring biased metering plunger that would not close up the metering orifice in the valve housing, but which was also so designed as to meet the flow performance charts of Defendant's customers and thereby overcome problems of engine performance which were not recognized by W. W. Lowther.

14. There was conflicting testimony as to whether Defendant's employee, Mr. William I. Barnes, stated that his company copied the Plaintiff's valve, but since Mr. Barnes, Mr. Elliott and Mr. Givler, all present at the time of the alleged statement, categorically denied it (Tr. 363, 375, 396-397), and since it would have been an unlikely statement for Mr. Barnes to have made in any event, the Court finds that Mr. Barnes made no such statement.

15. Mr. Givler, Mr. Wasisco and Mr. Barnes all testified that they had not seen the inside of Plaintiff's valve

at the time they designed the Defendant's valve, and the Court finds this testimony credible in view of the simplicity of the basic valve device. The Court need not, and therefore, does not make any finding as to the novelty of the eccentric mounting and canting of the metering pin in Defendant's valve.

16. The Lowther patent in suit lays great stress both throughout the specification and claims on the maintenance of the metering pin centrally and necessarily out of contact with the orifice (PX-1, column 3, lines 66-70, column 5, lines 6-11), and for that reason it is not infringed by Defendant's valve in which the metering plunger is deliberately caused to contact the orifice at load conditions (Tr. 374, 375, 393, 430, 431). The valve of the Defendant (DX 10, 11, 12 and PX-35) employs a substantially different means compared to the valve of the patent in suit to accomplish a substantially different result.

Conclusions of Law.

1. This Court has jurisdiction and venue of the cause at bar.

2. United States Letters Patent No. 3,105,477 issued to Plaintiff as assignee of Wilfred W. Lowther is invalid because the subject matter thereof, as a whole, would have been obvious to one of ordinary skill in the art under the terms of 35 U. S. C. 103.

3. United States Letters Patent No. 3,105,477 is not infringed by the construction that the Defendant is shown to have manufactured.

4. Defendant is entitled to the costs of this action.

Enter:

Richard B. Austin,

United States District Judge.

Dated: June 7, 1966.